

The following Listing of Claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims:

1. (Currently Amended) A method for searching a peer-to-peer computer network, comprising:

collecting data about a plurality of computers within the peer-to-peer network, including a network location of each of the plurality of computers, the collecting including,

sending a signal to at least one of the plurality of computers;

receiving the signal upon its return from the at least one computer; and

forming a profile characterizing the at least one computer based on information provided by the signal;

selecting at least one computer to be a selected computer, based on the collected data; and

routing a search query from a user to the selected computer via the network location of the selected computer,

wherein the profile comprises one or more of:

a round trip time measure taken by the signal during its travel to and from the at least one computer;

information on a number of files contained within the at least one computer;

information on an amount of content available to the network on the at least one computer;

information on the at least one computer's capability to process a search query;

information on a number of connected computers encountered by the signal during its travel to and from the at least one computer;

information on a number of additional computers connected to the at least one computer;

information on a frequency with which the plurality of computers are connected to the network; and

information on which of the plurality of computers are currently connected to the network.

2-10. (Canceled)

11. (Currently Amended) ~~The method of claim 1, further comprising~~ A method for searching a peer-to-peer computer network, comprising:

collecting data about a plurality of computers within the peer-to-peer network, including a network location of each of the plurality of computers, the collecting of data including,

collecting a plurality of statistical measures which characterize each of the plurality of computers;

assigning a weighted score to each statistical measure for each of the plurality of computers;

combining the weighted scores to obtain a rank for each of the plurality of computers; and

ranking the plurality of computers according to the weighted scores;

selecting at least one computer to be a selected computer, based on the collected data;

routing a search query from a user to the selected computer via the network location of the selected computer.

12. (Currently Amended) The method of claim 1, wherein said the collecting of data about a the plurality of computers within the peer-to-peer network further comprises monitoring data exchanges between the plurality of computers.

13. (Previously Presented) The method of claim 1, further comprising storing the collected data in a memory, wherein at least a portion of the collected data is content data which includes information on the content data available for searching on the plurality of computers.

14. (Currently Amended) ~~The method of claim 13, further comprising:~~ A method for searching a peer-to-peer computer network, comprising:
collecting data about a plurality of computers within the peer-to-peer network,
including a network location of each of the plurality of computers;

storing the collected data in a memory, wherein at least a portion of the collected data is content data which includes information on the content data available for searching on the plurality of computers;

removing the content data after a predetermined period of time;

sending a common user search query into the network on a periodic basis; and

storing a result of the common user search query in the memory;

selecting at least one computer to be a selected computer, based on the collected data; and

routing a search query from a user to the selected computer via the network location of the selected computer.

15. (Previously Presented) The method of claim 13, further comprising storing a portion of the content data based on previous user requests.

16. (Previously Presented) The method of claim 13, further comprising monitoring a current connectivity status of each of the plurality of computers.

17. (Currently Amended) The method of claim 16, further comprising:
collecting a plurality of statistical measures which characterize each of the plurality of computers;

assigning a weighted score to each statistical measure for each of the plurality of computers;

combining the weighted scores to obtain a rank for each of the plurality of computers;

ranking the plurality of computers according to the weighted scores; and

selecting the selected computer based on the content data, the current connectivity status and the ~~ranks~~ ranking of the plurality of computers within the peer-to-peer network.

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18. (Previously Presented) The method of claim 13, further comprising storing a portion of the content data which identifies a type of file available for searching on the plurality of computers, wherein the selected computer is selected based in part on the type of file.

19. (Previously Presented) The method of claim 1, further comprising selecting a second selected computer based on the collected data and routing the search query from the user to the second selected computer after a selective one of a predetermined period of time and a user request.

20. (Currently Amended) The method of claim 2 1, wherein ~~said~~ the sending of a signal to at least one of the plurality of computers further comprises sending the signal to a plurality of geographical locations, wherein the geographical locations are selected based on ~~their~~ a respective proximity of each of the plurality of geographical locations to the user.

21. (Currently Amended) The method of claim 1, wherein ~~said~~ the collecting of data about the plurality of computers within the peer-to-peer network is performed periodically.

22. (Currently Amended) The method of claim 1, wherein ~~said~~ the collecting of data about a plurality of computers within the peer-to-peer network further comprises:

collecting data about a predetermined number of the plurality of computers at a first predetermined time interval;

B¹ ranking the predetermined number of the plurality of computers based on the collected data;

retaining a set of hub computers which make up a predetermined percentage of the plurality of computers that are most highly ranked; and

collecting data about only the set of hub computers at a second predetermined time interval, wherein the second predetermined time interval is smaller than the first predetermined time interval.

23. (Currently Amended) A system by which a user may establish an optimal connection to a peer- to-peer computer network, comprising:

a monitor for measuring data about a plurality of computers within the peer-to-peer network; the monitor including,

a profiler which collects the measured data by sending a signal to at least one of the plurality of computers and receiving the signal therefrom, to thereby form a profile of the at least one of the plurality of computers; and

a database which stores the data collected by the profiler; and

a selector for selecting at least one of the plurality of computers to be a selected computer, based on the measured data, and which outputs a network location of the selected computer to the user, to thereby allow the user to connect to the selected computer,

wherein the profile includes one or more of:

a round trip time measure taken by the signal during its travel to and from the at least one computer;

information on a number of files contained within the at least one computer;

information on an amount of content available to the network on the at least one computer;

information of the at least one computer's capability to process a search query;

information on a number of connected computers encountered by the signal during its travel to and from the at least one computer;

information on a number of additional computers connected to the at least one computer;

information on a frequency with which the at least one computer is connected to the network; and

information on which of the plurality of computers are currently connected to the network.

24-32 (Canceled)

33. (Currently Amended) The system of claim 23, wherein the monitor is a computer within the peer-to-peer network, and further wherein at least a portion of the measured data is collected by monitoring data exchanges in the peer-to-peer network.

34. (Currently Amended) ~~The system of claim 23, further comprising~~ A system by which a user may establish an optimal connection to a peer- to-peer computer network, comprising:

a monitor for measuring data about a plurality of computers within the peer-to-peer computer network;

a memory for collecting the measured data wherein the measured data includes information on content available for searching on the plurality of computers; and

a selector for selecting at least one of the plurality of computers to be a selected computer, based on the measured data, and which outputs a network location of the selected computer to the user, to thereby allow the user to connect to the selected computer.

35. (Currently Amended) ~~The system of claim 34,~~ A system by which a user may establish an optimal connection to a peer- to-peer computer network, comprising:

a monitor for measuring data about a plurality of computers within the peer-to-peer network, the monitor including,

a profiler which collects the measured data by sending a signal to at least one of the plurality of computers and receiving the signal therefrom, to thereby form a profile of the at least one of the plurality of computers; and

a database which stores the data collected by the profiler;

a memory for collecting the measured data wherein the measured data includes information on content available for searching on the plurality of computers, wherein the memory removes the content data after a predetermined period of time, further wherein the memory sends common user search queries into the network on a periodic basis and stores the results;

a selector for selecting at least one of the plurality of computers to be a selected computer, based on the measured data, and which outputs a network location of the selected computer to the user, to thereby allow the user to connect to the selected computer,

wherein the profile includes one or more of:

a round trip time measure taken by the signal during its travel to and from the at least one computer;

information on a number of files contained within the at least one computer;

information on an amount of content available to the network on the at least one computer;

information of the at least one computer's capability to process a search query;

information on a number of connected computers encountered by the signal during its travel to and from the at least one computer;

information on a number of additional computers connected to the at least one computer;

information on a frequency with which the at least one computer is connected to the network; and

information on which of the plurality of computers are currently connected to the network.

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36. (Previously Presented) The system of claim 35, wherein a portion of the removed content data identifies a type of file available for searching on the plurality of computers, the portion being separately stored, further wherein the selected computer is selected based at least on the type of file.

37. (Previously Presented) The system of claim 34, wherein the memory stores a portion of the content data based on previous user requests.

38. (Currently Amended) The system of claim 23, wherein the monitor determines a current connectivity status for each of the plurality of computers, and wherein the selected computer is selected based on the content data and the current connectivity status.

39. (Canceled)

40. (Previously Presented) The system of claim 23, wherein the selector selects a second selected computer based on the data, further wherein the selector outputs a network location of the second selected computer to the user after a selective one of a predetermined period of time and a response to a user request.

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41. (Currently Amended) The system of claim 24 23, wherein ~~the~~ a plurality of profilers are located at a plurality of geographical locations which are remote from one another, and wherein the plurality of geographical locations are selected based on ~~their~~ a respective proximity of each of the plurality of profilers to a user.

42-43. Canceled.

44. (Currently Amended) ~~The system of claim 23,~~ A system by which a user may establish an optimal connection to a peer- to-peer computer network, comprising:

a monitor for measuring data about a plurality of computers within the peer-to-peer network; and

a selector for selecting at least one of the plurality of computers to be a selected computer, based on the measured data, and which outputs a network location of the selected computer to the user, to thereby allow the user to connect to the selected computer,

wherein the ~~host~~ monitor collects data about a predetermined number of the plurality of computers at a first predetermined time interval, the ~~host~~ selector ranking the

computers accordingly, and retaining a set of hub computers which make up a predetermined percentage of the plurality of computers which are most highly-ranked, and thereafter collects data about only the set of hub computers at a second predetermined time interval, wherein the second predetermined time interval is smaller than the first predetermined time interval.

45. (Canceled)

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46. (Currently Amended) ~~The computer program of claim 45,~~ A computer program for enabling a computer system to optimally couple to a peer-to-peer computer network, the computer program utilizing a computer usable medium having computer readable program code, the computer readable program code comprising:

program instructions for collecting data about a plurality of computers within the peer-to-peer network, including a network location of each of the plurality of computers;

program instructions for selecting at least one computer to be a selected computer, based on the collected data; and

program instructions for routing search queries from the computer system to the selected computer via the network location of the selected computer, wherein said means the program instructions for collecting data about a plurality of computers within the network include, further comprises:

means program instructions for sending a signal to at least one of the plurality of computers;

means program instructions for receiving the signal upon its return from the at least one computer; and

means program instructions for forming a profile characterizing the at least one computer, based on information provided by the signal.

47. (Currently Amended) ~~The computer program of claim 45, further comprising:~~ A computer program for enabling a computer system to optimally couple to a peer-to-peer computer network, the computer program utilizing a computer usable medium having computer readable program code, the computer readable program code comprising:

program instructions for collecting data about a plurality of computers within the peer-to-peer network, including a network location of each of the plurality of computers;

program instructions for selecting at least one computer to be a selected computer, based on the collected data; and

program instructions for routing search queries from the computer system to the selected computer via the network location of the selected computer;

means program instructions for collecting a plurality of statistical measures which characterize each of the plurality of computers;

means program instructions for assigning a weighted score to each statistical measure for each of the plurality of computers;

means program instructions for combining the weighted scores to obtain a rank for each of the plurality of computers; and

means program instructions for ranking the plurality of computers according to the weighted scores.

48. (Currently Amended) The computer program of claim 45 ~~46~~ further comprising means program instructions for monitoring data exchanges between the plurality of computers.

49. (Currently Amended) The computer program of claim 48, further comprising:

means program instructions for storing the collected data in a memory, wherein at least a portion of the collected data is content data which includes information on content available for searching on the plurality of computers.

50. (Currently Amended) The computer program of claim 49, further comprising:

means program instructions for removing the content data after a predetermined period of time ;

means program instructions for sending a common user search query on a periodic basis; and

means program instructions for storing a result of the common user search query in the memory.

51. (Currently Amended) The computer program of claim 49, wherein ~~said~~ means the program instructions for storing stores include program instructions for storing a portion of the content data based on previous user requests.

52. (Currently Amended) The computer program of claim 49 further comprising ~~means~~ program instructions for monitoring a current connectivity status of each of the plurality of computers, wherein the selected computer is selected based on the content data and the current connectivity status.

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53. (Currently Amended) ~~The computer program of claim 45 further comprising:~~ A computer program for enabling a computer system to optimally couple to a peer-to-peer computer network, the computer program utilizing a computer usable medium having computer readable program code, the computer readable program code comprising:

program instructions for collecting data about a plurality of computers within the peer-to-peer network, including a network location of each of the plurality of computers;

program instructions for selecting at least one computer to be a selected computer, based on the collected data;

program instructions for routing search queries from the computer system to the selected computer via the network location of the selected computer;

means program instructions for collecting a plurality of statistical measures for each of the plurality of computers;

means program instructions for assigning a weighted score to each statistical measure for each of the plurality of computers;

means program instructions for combining the weighted scores to obtain a rank for each of the plurality of computers;

means program instructions for ranking the plurality of computers according to the weighted scores, thereby producing a rank of each computer in the plurality; and

means program instructions for selecting the at least one computer based on the content data, the current connectivity status and the rank.

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54. (Currently Amended) The computer program of claim 45 46, further comprising means program instructions for sending the signal to a plurality of geographical locations which are remote from one another, wherein the plurality of geographical locations are selected based on ~~their~~ a respective proximity of each one of the plurality of geographical locations to a user.

55-64. Canceled.
